REMARKS

The amendments are an earnest effort to place the application in condition for allowance. In view of the following remarks, Applicant respectfully requests entry of the amended claim language, reconsideration of the application, and allowance of the subject application. The Applicant appreciates the Examiner Willett's telephone interview conducted on May, 2004 with the Applicant's Attorney Glenn Foster, during which the scope of claims were discussed. No agreement was reached during the Interview as to allowable subject matter.

Rejection of the Claims

In the Office Action mailed January 13, 2004, claim 31 stands rejected under 35 U.S.C. §112, second paragraph; and, claims 1-41 were rejected under 35 U.S.C. § 103(a) as being unpatentable.

Claims 1, 2, 15, 26, 29, 31, 33, 35, 36, 37, 38, 39 and 40 are amended. Claim 41 is canceled. Claims 1-40 remain in the application for consideration.

35 U.S.C. § 112

In the present Office Action, claim 31 stands rejected under 35 U.S.C. § 112, second paragraph, as being indefinite to particularly point out and distinctly claim the subject matter of the invention. This claim has been amended and recites [added language appears in bold italics]:

- a mapping table to map previous driver identifiers to subsequent driver identifiers;
- wherein the driver matching module further checks the mapping table to determine whether any of the plurality of drivers currently has a corresponding driver identifier that is different than a received driver identifier but that *corresponds to a same printer driver as the received printer driver identifier*; and
- if *so,* then installs *the corresponding printer* driver at the server.

Applicant respectfully submits that the subject matter of this claim is sufficiently definite and clear.

35 U.S.C. § 103 Rejections

Claims 1, 14-17, 26-28, and 36 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the Kathail et al (U.S. Patent Number 5,802,365, hereinafter "Kathail") in view of Gao (U.S. Patent Number 6,581,094).

Claims 1-41 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kathail in view of Cavill (U.S. Patent Number 6,003,069).

The Claim Rejections

Claim 1 has been amended and recites a method in a server-client environment comprising [added language appears in bold italics]:

- receiving at the server a driver identifier for a printer that is attached to the client;
- using the driver identifier to select a closest matching driver of a plurality of drivers to install at the server; and
- installing, at the server *and not at the client,* the selected driver in order to enable applications executing on the server to print to the printer using the installed driver.

In making out the rejection of this claim, the Office argues that its subject matter is obvious in view of the combinations of Kathail and Gao, and Kathail and Cavill. Applicant disagrees, particularly in view of the amendment that has been made and, accordingly, traverses the Office's rejection.

Addressing first the combination of Kathail and Gao, the Office argues that Kathail discloses all of the subject matter of this claim except for the recited act of "installing a print driver on the server side...." To supply this missing element, the Office appears to argue that Gao discloses such subject matter. Applicant respectfully disagrees.

Specifically, Gao discloses a method and system in which network addresses for digital devices within a networked environment are stored and a Uniform Device Descriptor (UDD) file is associated with each digital device. Gao instructs that each Uniform Device Descriptor file characterizes a set of attributes associated with its corresponding digital device and that specified attributes in a search request are matched with attributes in a Uniform Device Descriptor (UDD) file to render a selected digital device.

With respect to the attributes embodied in the UDD, Gao instructs that attributes include generic attributes and specific device attributes. See, e.g. column 5, lines 39+. Examples of generic attributes include such things as identity attributes, system attributes, service attributes, and geography attributes. The specific device attributes include such things as profile attributes, connection attributes, linking attributes, and access attributes. Gao further instructs that such attributes can be used as the basis of a search to discover the various devices. For example, starting in column 14 at line 1, Gao instructs that its disclosed technology allows digital devices to be easily and precisely located through a web browser search. The web browser search can be used to identify digital devices with selected attributes, such as device location, device speed, device functionality, and the like, as specified in the UDD file for each digital device. Gao's search module may rely upon existing Internet searching techniques to

match specified attributes in a search request with attributes in a UDD file. For example, the search request may specify generic attributes including system attributes and geography attributes. The search may further specify device attributes including profile attributes and connection attributes. A UDD file satisfying the specified criteria is then selected using standard searching techniques. Once a digital device is located, Gao instructs that the user can communicate with the digital device in a variety of modes.

Thus, it appears that Gao is primarily concerned with device discovery and use. Thus, to this extent, it does not appear that Gao's focus is germane to the problem addressed by the subject matter embodied by this claim. The Office argues that print driver capability on the server that enables printing at the client is taught by Gao. Yet, Applicant cannot find any such disclosure to support this proposition. Accordingly, the Office has not made out a *prima facie* case of obviousness. If the Office disagrees, Applicant respectfully invites the Office to point to a specific location in Gao where such is the case.

In addition, the Office argues that this claim's subject matter is rendered obvious by the combination of Kathail and Cavill. Specifically, the Office again argues that Kathail discloses all of the subject matter of this claim except for teaching installation of a print driver on the server side for printing at the client printer. For this feature, the Office relies on Cavill, citing to column 3, lines 38-40; column 4, lines 3-5; column 2, lines 20-22; and column 3, lines 53-54 for support.

Cavill discloses a client/server printer driver that includes a client-side subsystem and a server-side subsystem. The client side subsystem transmits a print job to the server-side subsystem which, in turn, receives the print job,

processes the print job, and sends the processed data back to the client-side for output. A *client/server printer driver* includes a *client-side subsystem* and a *server-side subsystem*. The client-side subsystem divides the print job into portions to be processed on the client-side and on the server-side, and then transmits the server-side portions of the job to a server-side subsystem for processing. The server-side subsystem receives the server-side portions and processes these portions to create processed server-side portions and then transmits the server-side portions back to the client-side. As noted by Cavill, "[i]n essence, the driver is split between the NC and the server, with each part performing the tasks that are best suited for the systems on which they reside." See, e.g. column 2, lines 56-59.

As noted above, claim 1 has been amended to recite that the act of "installing" the selected driver is performed at the server *and not at the client* in order to enable applications executing on the server to print to the printer using the installed driver. As Cavill specifically teaches splitting the driver between the client and the server, it appears that this reference teaches directly away from the subject matter of this claim. As such, this claim patentably distinguishes over the cited references and is allowable.

Claims 2-14 depend from claim 1 are allowable as depending from an allowable base claim. These claims are also allowable for their own recited features which, in combination with those recited in claim 1, are neither disclosed nor suggested by the references of record either singly or in combination with one another.

Claim 15 has been amended and recites a method implemented in a server in a server-client environment comprising [added language appears in bold italics]:

- automatically selecting at least one of a plurality of drivers corresponding to a peripheral device attached to the client; and
- installing, at the server *and not at the client*, the selected at least one driver wherein the server can interface with the peripheral device using the driver to cause the selected at least one driver to perform an action at the peripheral device using the driver.

In making out the rejection of this claim, the Office argues that its subject matter is obvious in view of the combinations of Kathail and Gao, and Kathail and Cavill. Applicant disagrees, particularly in view of the amendment that has been made and, accordingly, traverses the Office's rejection.

Addressing first the combination of Kathail and Gao, the Office argues that Kathail discloses all of the subject matter of this claim except for the recited act of "installing". To supply this missing element, the Office appears to argue that Gao discloses such subject matter. Applicant respectfully disagrees.

Specifically, Gao discloses a method and system in which network addresses for digital devices within a networked environment are stored and a Uniform Device Descriptor (UDD) file is associated with each digital device of the set of digital devices. Gao instructs that each Uniform Device Descriptor file characterizes a set of attributes associated with its corresponding digital device and that specified attributes in a search request are matched with attributes in a Uniform Device Descriptor (UDD) file to render a selected digital device. With respect to the attributes embodied in the UDD, Gao instructs that attributes include generic attributes and specific device attributes. See, e.g. column 5, lines 39+. Examples of generic attributes include such things as identity attributes, system attributes, service attributes, and geography attributes. The specific device

attributes include such things as profile attributes, connection attributes 126, linking attributes 128, and access attributes 130. Gao further instructs that such attributes can be used as the basis of a search to discover the various devices. For example, starting in column 14 at line 1, Gao instructs that its disclosed technology allows digital devices to be easily and precisely located through a web browser search. The web browser search can be used to identify digital devices with selected attributes, such as device location, device speed, device functionality, and the like, as specified in the UDD file for each digital device. Gao's search module may rely upon existing Internet searching techniques to match specified attributes in a search request with attributes in a UDD file. For example, the search request may specify generic attributes including system attributes and geography attributes. The search may further specify device attributes including profile attributes and connection attributes. A UDD file satisfying the specified criteria is then selected using standard searching techniques. Once a digital device is located, Gao instructs that the user can communicate with the digital device in a variety of modes.

Thus, it appears that Gao is primarily concerned with device discovery and use. Thus, to this extent, it does not appear that Gao's focus is germane to the problem addressed by the subject matter embodied by this claim. The Office argues that print driver capability on the server that enables printing at the client is taught by Gao. Yet, Applicant cannot find any such disclosure to support this proposition. Accordingly, the Office has not made out a *prima facie* case of obviousness. If the Office disagrees, Applicant respectfully invites the Office to point to a specific location in Gao where such is the case.

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Cavill discloses a client/server printer driver that includes a client-side subsystem and a server-side subsystem. The client side subsystem transmits a print job to the server-side subsystem which, in turn, receives the print job, processes the print job, and sends the processed data back to the client-side for output. A *client/server printer driver* includes a *client-side subsystem* and a *server-side subsystem*. The client-side subsystem divides the print job into portions to be processed on the client-side and on the server-side, and then transmits the server-side portions of the job to a server-side subsystem for processing. The server-side subsystem receives the server-side portions and processes these portions to create processed server-side portions and then transmits the server-side portions back to the client-side. As noted by Cavill, "[i]n essence, the driver is split between the NC and the server, with each part performing the tasks that are best suited for the systems on which they reside." See, e.g. column 2, lines 56-59.

As noted above, this claim has been amended to recite that the act of "installing" the selected driver is performed at the server *and not at the client*. As Cavill specifically teaches splitting the driver between the client and the server, it appears that this reference teaches directly away from the subject matter of this

claim. As such, this claim patentably distinguishes over the cited references and is allowable.

Claims 16-23 depend from claim 1 are allowable as depending from an allowable base claim. These claims are also allowable for their own recited features which, in combination with those recited in claim 1, are neither disclosed nor suggested by the references of record either singly or in combination with one another.

Claim 26 has been amended and recites one or more computer-readable media having stored thereon a computer program that, when executed by one or more processors of a server in a client-server system, causes the one or more processors to, *inter alia*, receive a printer driver identifier for a printer attached to a client and use the printer driver identifier to select one of a plurality of printer drivers to install at the server *and not at the client*....

As noted above, the Office's combinations of Kathail/Gao and Kathail/Cavill neither disclose nor suggest any such subject matter. Accordingly, this claim is allowable.

Claims 30-32 depend from claim 29 are allowable as depending from an allowable base claim. These claims are also allowable for their own recited features which, in combination with those recited in claim 29, are neither disclosed nor suggested by the references of record either singly or in combination with one another.

Claim 33 has been amended and recites an apparatus comprising [added language appears in bold italics]:

- a driver library including a plurality of printer drivers; and

- a driver matching module to select at least one of the plurality of printer drivers to be installed *on the apparatus* to enable a printer attached to a client connected with the apparatus to print, *wherein the driver is installed on the apparatus and not the client.*

As noted above, the Office's combinations of Kathail/Gao and Kathail/Cavill neither disclose nor suggest any such subject matter. Accordingly, this claim is allowable.

Claim 34 depends from claim 33 and is allowable as depending from an allowable base claim. This claim is also allowable for its own recited features which, in combination with those recited in claim 33, are neither disclosed nor suggested by the references of record either singly or in combination with one another.

Claim 35 has been amended and recites a computer readable medium having computer executable instructions, which when executed by a processor, causes the processor to [added language appears in bold italics]:

- receive at a server a driver identifier for a printer that is attached to a client *connected with the server, wherein the server* can print information at the client;
- use the driver identifier to select a closest matching driver of a plurality of drivers to install at the server, *and not at the client*; and
- install, at the server, the selected driver in order to enable applications that are executing to print to the printer using the installed driver.

As noted above, the Office's combinations of Kathail/Gao and Kathail/Cavill neither disclose nor suggest any such subject matter. Accordingly, this claim is allowable.

Claims 36-40 depend from claim 35 are allowable as depending from an allowable base claim. These claims are also allowable for their own recited features which, in combination with those recited in claim 35, are neither disclosed nor suggested by the references of record either singly or in combination with one another.
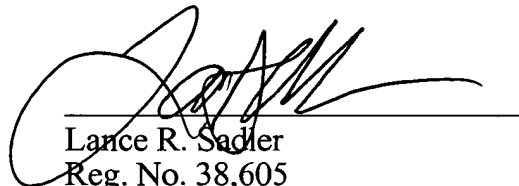
Conclusion

Applicant submits that the above claims are in condition for allowance. Applicant respectfully requests reconsideration and prompt issuance of the present application. Should any issue remain that prevents immediate issuance of the application, the Examiner is encouraged to contact the undersigned attorney to discuss the unresolved issue.

Respectfully Submitted,

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Dated: 7/12/04

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